RESOURCE RESERVATION SYSTEM IN A COMPUTER NETWORK TO SUPPORT END-TO-END QUALITY-OF-SERVICE CONSTRAINTS

ABSTRACT OF THE DISCLOSURE

A computer network is disclosed comprising a plurality of interconnected computer devices including a plurality of disk drives for storing network data, each disk drive comprising a head and a disk. The computer network comprises a plurality of interconnected nodes, and a reservation facility for reserving resources within the disk drives and the nodes to support a predetermined Quality-of-Service constraint with respect to data transmitted between the disk drives through the nodes of the computer network. In one embodiment, a switched node is disclosed comprising switching circuitry having more than two bi-directional ports for simultaneously transmitting data in multiple dimensions through a computer network, a disk for storing data, a head actuated over the disk for writing data to and reading data from the disk, and a reservation facility for reserving resources associated with data read from the disk and written to the disk to support the predetermined Quality-of-Service constraint with respect to data transmitted through the computer network.